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Type I Progress Report for the period 8 December 1972 to 8 February 1973

TITLE: Effects of Construction and Staged Filling of Reservoirs on

the Environment and Ecology MAC #341

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GSFC ID NUMBER: DE 335

OBJECTIVE: To study the environmental and ecological impact of the construction and operation of Oakley Dam and Friends Creek Impoundment located on the Sangamon River in East Central Illinois.

Personnel involved with the image analysis commenced Phase II - Preliminary Data Analysis, in early December 1972. It was found the proposed data analysis plan (DAP) could not be used to effectively process the ERTS imagery; consequently, a new data analysis plan (DAP) has been prepared and will be submitted in a few days.

under the new DAP, is now fully operational. This program will interface with the digital output of a WILD A7 stereoplotter, to be used in the photogrammetric phases of the project. Darkroom material has been ordered for image analysis under the new DAP and should be received any day. Preparation to use a WILD A7 stereoplotter for the production of a plenimetric base map have been completed.

During the report period, ERTS imagery was received for the following pass dates: 24 November 1972 and 13 December 1972. No aircraft underflight coverage has been received for the month of December 1972. It is essential that aircraft coverage be taken of the study area during the summer (July) and winter (December). The summer coverage will allow for the location of environmental changes using vegetation as an indicator. Winter coverage will permit an unobstructed view of the earth's surface and water courses for environmental changes. Coverage for both seasons will be compared to future aircraft coverage and present and future ERTS coverage to locate areas where possible environmental changes are occurring. Ground truth data will then be studied to confirm whether or not an environmental change is occurring in the "observed" area.

Three data request forms were submitted to the NDPF for additional ERTS products on the following dates. 14 November 1972, 9 January 1973, and 29 January 1973, none of these requests have been answered as of 8 February 1973.